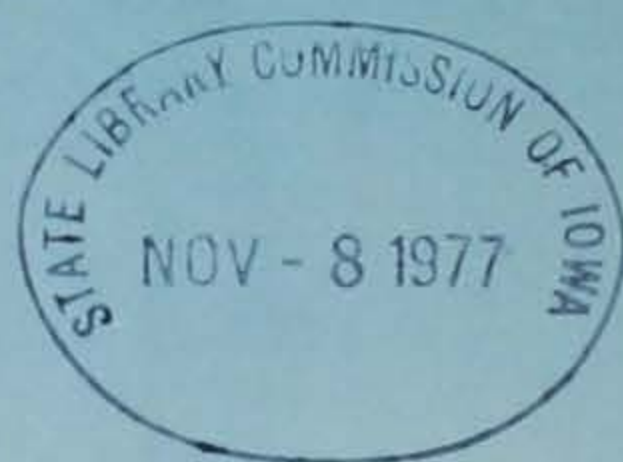




NOVEMBER 1977

IOWA conservationist





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CLASSROOM CORNER

Front Cover: "Anticipation" by Ken Formanek. First place winner in action class of Outdoor Writers Association of America 1977 photo competition.

Back Cover: Pintail and Song Sparrow by Jim Landenberger

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THE ENERGY ENVIRONMENT

Land, air, water, energy.

Mankind has come at last to recognize the importance—indeed, the necessity—of using all of our planet's resources wisely.

It is only in this century that the limitations of these resources have become so readily apparent. When the end of the American frontier was reached, man realized there would be no more "free" land, and that each parcel of existing land must be put to its optimum use.

With the coming of the automobile, heavy industry and their accompanying smog, smoke and exhaust, man realized the necessity of protecting the atmosphere and keeping it breathable.

Whenever a major period of drought has occurred, man has realized his dependence on a continuous supply of water. Here in Iowa, the summer of 1977 has proved to be such a period, and many steps have been taken to conserve that valuable liquid resource.

But it has only been in recent years that man has come to realize that the end of so-called "cheap" energy is near. It was the oil embargo of 1973-74 that brought our energy dilemma into sharp focus, and it is only now that we are starting to recognize that water and land resources will control the rate and extent our future energy supplies are developed.

Since the embargo, we have all heard a great deal about the importance of conserving energy. The energy shortage is real and we must learn to use energy resources wisely.

Why is energy such a valuable resource?

Quite simply, because we refuse to do without it. Energy has contributed significantly to raising our standard of living, making more jobs for more people, and offering us more opportunities for leisure activities.

As consumers, we demand energy every day—in fact, nearly every hour—of our lives. Nearly every piece of equipment we use in our homes depends on energy for its operation, and energy production consumes other land and water resources.

An abundant supply of energy has enabled us to increase dramatically our nation's food production capability. Generally speaking, we are able to produce sufficient food for everyone in our country and provide for the nutritional needs of millions of people in other nations as well. Our surplus crops buy us much of the currency we need for foreign trade. Our food products are, in turn, perhaps the greatest attraction our nation has to barter for oil imports—now over 40% of our oil supply.

Energy also helps provide us with economic stability. Manufacturing, commerce and transportation all depend on adequate supplies of energy. What would happen to us without electrical energy was vividly demonstrated this past summer during the "blackout" in New York City. Millions of dollars in economic damage was suffered as a result of the 24-hour outage, and millions of lives were affected by it. The tremendous problems which would result from a loss of energy on a larger scale are difficult to imagine.

What are our present energy conservation requirements? How do we make our available supplies of energy go farther and last longer? What steps must be taken now to assure ourselves of adequate energy supplies in the future? And how does all this effect the wise use of land, air and water?

First, of course, we must all learn to live with the conservation ethic as it affects our use of energy. One group of experts has estimated that conservation of present energy resources could take care of about 17% of our total energy demands by the year 2000.

Conservation must be an individual effort. There are numerous steps each of us can take to lessen or eliminate waste of our precious energy resources.

Probably the most significant step we can take is to insulate our homes adequately. If a home is under-insulated or uninsulated, the furnace and air conditioner have to work harder and longer, consuming more energy to do their heating and cooling jobs. Insulation can save as much as 30% of the energy which a home consumes. By making our homes more energy efficient, we can cut energy use without affecting our lifestyles.

Conservation of energy also means learning to use "off-peak" energy whenever practical. Off-peak energy is that which is produced and used during the hours of the day or time of the year when energy demand is lowest.

So, during the hottest part of summer, when air conditioner use is high, we should learn to shift our use of equipment that consumes large amounts of energy or that which produces heat, such as an oven, to the low-demand hours of the day, primarily early morning or late evening.

Using off-peak energy puts less of a strain on existing power production facilities, and lessens the need for the construction of new power facilities. (But, of course, even if off-peak energy is used effectively, some new plants will have to be built, just to keep up with increasing

ENVIRONMENT

A guest editorial by Gene Young, Iowa Power & Light Company

demand.)

While we learn to conserve, we must also learn to substitute energy produced by the most readily available sources for energy produced by those sources which are being depleted most rapidly. We must also recognize that, as yet, a growing economy demands more energy.

For example, electricity which is produced from our abundant supplies of coal or nuclear fuel can be substituted for those functions which presently burn oil or natural gas directly. This is necessary so that oil and gas can be saved for those uses where there is no practical substitute. In this way, we can stretch our present energy sources and give science more time to develop new energy sources.

At the same time, because many of our sources of energy (again, primarily oil and gas) are non-renewable, we must develop new alternative energy sources, such as solar power, thermal, wind and tidal power.

Research on each of these potentially promising energy sources is still in its infancy. For instance, construction won't begin until next year on the first U.S. solar thermal plant, a pilot project located in California's Mojave Desert. Designed primarily for scientists to study its operation, this solar plant will produce only a minimal amount of usable electric power.

Most experts agree that development of a practical, large-scale, active solar energy plant is still decades away. But a breakthrough may be achieved, and research into this potentially unlimited energy source should be encouraged and promoted.

Scattered research projects are also being conducted on methods of utilizing geothermal (steam), tidal (water) and wind power for producing electricity. But that research is still in its initial phases, too, and further work will be required before these potential energy sources become practical.

Until these new sources can be tapped for abundant, cheap energy, all evidence points to the fact that most new supplies of electrical energy for the intermediate future will most likely come from nuclear and coal-burning plants. (As a matter of fact, over one-third of the electrical energy Iowa citizens now use comes from nuclear power.)

One's initial reaction might be: How will these power plants affect the environment? How do we balance the idea of conservation of land, water and air with the necessity of building new power plants?

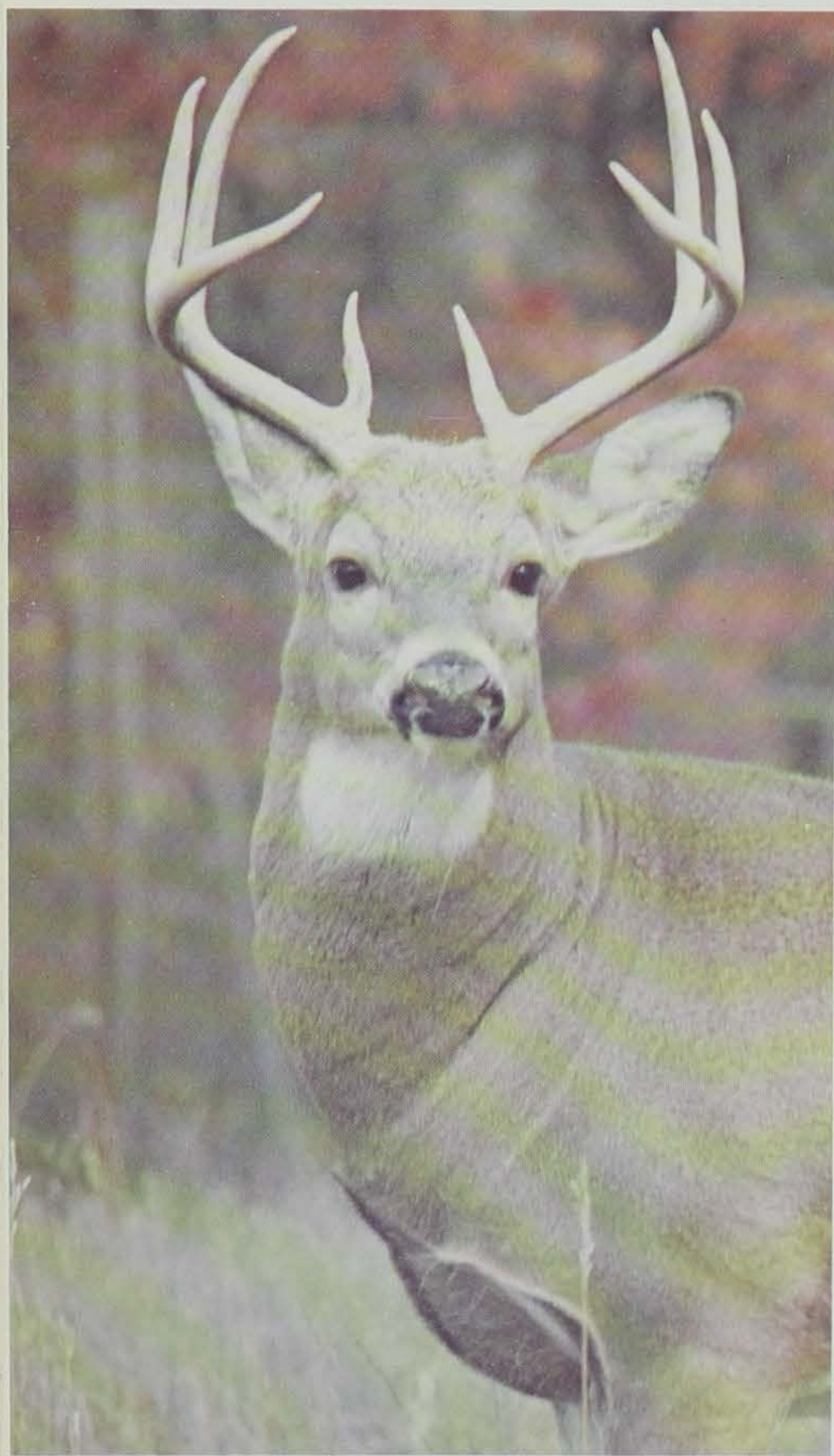
No one denies there will be problems.

When a coal plant is built, there must be coal to fuel it. The need will increase for new coal mines to be opened and developed. We'll have to perfect new, environmentally responsible strip-mining procedures, which protect the countryside while they make more coal available for energy production. More and better rail systems to transport the coal to the coal plants will have to be built. And we'll need new technology to enable us to burn coal with less pollution, less damage to the air we all breathe.

Nuclear power has its attendant problems, too, including public apprehension and misunderstanding. In fact, nuclear power has the best environmental record of any industry in the United States!

Whether we're talking about coal or nuclear power plants, we'll need land on which to build them, and additional land over which transmission lines can be routed. The need for land for agriculture must be balanced against the need for land on which to locate (Continued Page 13)





The IOWA DEER SEASON in Perspective

by Lee Gladfelter

WILDLIFE RESEARCH BIOLOGIST

Photo by Ken Formanek

IT WILL SOON be time for the 1977 shotgun deer season, which gives us a chance to stop and reflect on past deer seasons and what the future holds for this exciting sport. Deer have been around Iowa for thousands of years. The remains of antlers, bones and teeth found in gravel pits provide evidence that the deer family has existed in Iowa since early in the Pleistocene period 50,000 years ago. Deer were probably abundant along the timbered streams of Iowa when the first settlers arrived. The pioneers utilized deer heavily for food and clothing and market hunting became an important livelihood for many hunters. Reports document very heavy harvest of deer during the blizzards of 1848-49 and 1856 when deer were virtually helpless in the deep snow. By 1898, deer were so scarce that the legislature closed the season to any type of hunting. During the early 1900's deer populations began to grow because of restocking, escape from captive herds, and immigration from surrounding states. Early estimates of the statewide deer herd placed their numbers between 500 and 700 in 1936. Deer continued to increase and in 1947 the first statewide deer survey was initiated. Results of that survey placed the deer herd at around 1,650 deer. Deer were responding to excellent habitat provided by brush fields and early growth stages of timber created by the heavy clearing of mature forests in the early 1900's. By 1953, large deer herd concentrations in many counties brought forth complaints of severe crop damage which spurred the legislature into reopening the hunting season. Hunting promoted better dispersal of deer into available habitat; reports of crop damage subsided; and the deer herd continued to increase.

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Because of a nutritious food source and limited snow accumulation in the winter, starvation of deer in Iowa is rare. The major causes of deer mortality are legal and illegal hunting, disease, accidents, and predation account for a small percentage of the annual loss. Annual production of the herd is very high with the majority of female fawns breeding and producing young their first year. The Iowa deer herd has the capability of increasing by 10 percent in one year if there is no mortality. Hunting seasons are needed to crop off some of this excess and provide many days of recreation for the Iowa sportsman. The management objective for deer in Iowa is to provide the maximum amount of recreational opportunity to the citizens of Iowa while maintaining a healthy, stable deer population.

From 1953 to 1971 the Iowa deer hunting season consisted of limiting the number of paid shotgun hunters and allowing them to hunt for any sex of deer. In 1972 this was changed to a modified bucks-only season with a portion of the hunters obtaining any-sex licenses, and the remainder restricted to taking a buck with at least one forked antler. The ratio of any-sex to bucks-only licenses is based on the permissible harvest of does which would maintain a stable population, and the number of total licenses issued for each hunting zone. Quotas on the total number of licenses issued were maintained until 1975, but since then every applicant could obtain a license. In an effort to keep hunting pressure on the limited forest areas low and to increase hunter safety, two separate hunting seasons each year have been implemented since 1975. The split seasons have been successful in reducing hunting pressure, with no more than 60 percent of the hunters selecting one particular season during the year.

Information derived from hunter report cards indicates that the 1976 deer season was moderately successful. There were 78,000 shotgun hunters (60,000 paid and 18,000 free licenses) plus another 12,000 bow and arrow hunters licensed to hunt last fall. Cold weather, which sent the wind chill index to -50°F during the first season of 1976, was the main reason for a reduced deer harvest. About 16,500 deer were harvested by all hunters in 1976, which is below the record high harvest of 21,500 in 1975. Survey results indicate that about 14,200 deer were harvested by shotgun hunters and about 2,300 by bow hunters during their 56 day season (October 2 - November 26). The harvest by shotgun hunters during the two seasons (November 27 - 30 and December 3 - 10) was about the same, with 7,200 taken the first season and 7,000 during the second. Hunter success during the two seasons was also comparable, with shotgun bucks-only hunters averaging 7 percent and any-sex hunters 50 percent. Bow and arrow hunters did very well, averaging just over 20 percent success. The 1976 season did provide a great deal of recreation despite the cold weather, with over 250,000 shotgun hunter days and 162,000 bow hunter days spent in the field pursuing deer. The average shotgun hunter spent between 3 and 4 days hunting while the average bow hunter spent 14 days.

Looking ahead to the 1977 deer season, there are not many changes from the past two years. A split season will be held again this year to allow everyone to hunt but to distribute the hunting pressure over two time periods to maintain quality and safety in the sport. The dates for the two shotgun seasons are December 3 - 5 and December 10 - 16, with the bow season being held from October 8 to December 2. Second season shotgun hunters are allowed 7 days to hunt, compared to 4 days for the first season hunters, because many deer are removed from the population during the first season and the second season hunters need the extra time to increase their chances of harvesting a deer. The shotgun seasons were moved back a week this year to avoid the peak of the rut (November 15 - 30) and help insure that most of the adult does are bred before the season.

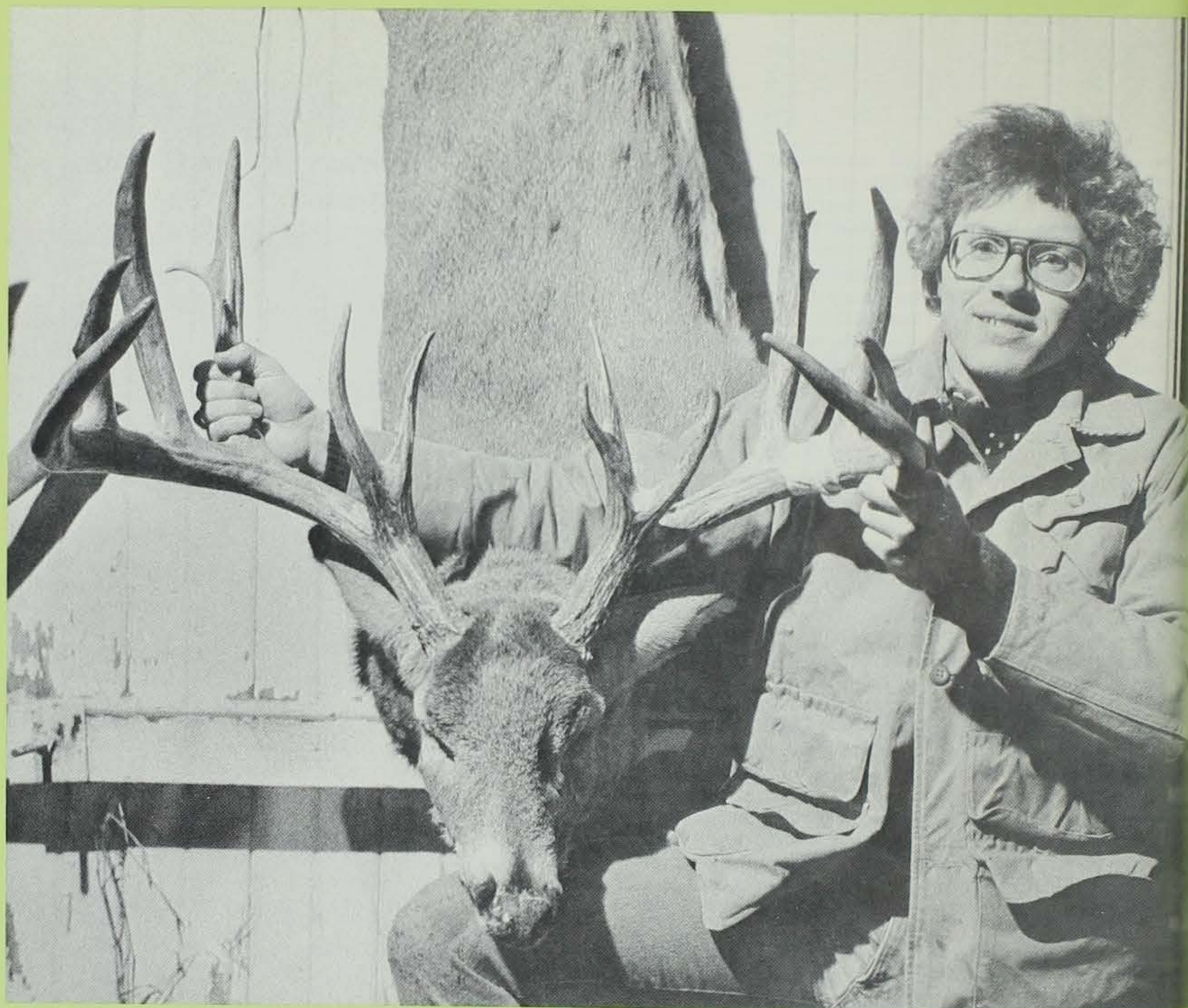
The 1977 Any-Sex License Quotas by Zone and Season.

ZONE	SEASON 1	SEASON 2
1	135	270
2	Bucks-only	275
3	450	900
4	350	700
5	570	1140
6	450	900
7	235	470
8	175	350
9	225	450
10	Bucks-only	275

Deer can best be managed in geographical areas where deer densities, hunting pressure, and amount of habitat are about the same. The best method to regulate the harvest in each of these zones is to place a quota on the number of any-sex licenses that are allowed. This quota is determined by estimating the deer population trend in each zone and regulating the harvest of does and fawns to meet management objectives. Most hunters in each zone are required to hunt for bucks-only, since bucks are in excess and can be removed from the population at a greater rate than does and fawns. By protecting most of the male fawns there is always a reservoir of button bucks that will be legal, antlered bucks the following season. Some hunting zones (2 and 10) with low deer densities will have the entire any-sex quota issued the second season, with a bucks-only season for all hunters during the first season. The reason for this is to avoid extremely high bucks-only to any-sex ratios, which are misleading to the hunters. With a bucks-only season, the hunter knows that there will not be any-sex licenses issued the first season and it is his choice if he wants to hunt then. Any-sex licenses issued at a higher rate to second season hunters in 1976 was very effective in equalizing the harvest between the two seasons. Again this year, twice as many any-sex licenses will be issued for the second season as the first in each hunting zone (except where bucks-only seasons are held during the first season). The enclosed table gives the number of any-sex licenses to be issued in each season for each hunting zone.

Landowner-tenant licenses, which are issued free to qualified landowners, will be issued at the same bucks-only to any-sex ratio as is determined by the paid shotgun license issue in each respective hunting zone and season. A random drawing will be held for all applicants in each zone and season to determine the recipients of the any-sex licenses.

The future for deer hunting in Iowa looks good with a strong and healthy deer herd. The number of deer hunters seems to have leveled off after many years of constant increases. The cost of deer licenses will probably be going up in the next few years to compensate for inflation in the cost of deer management. It is interesting to note that the deer license fee in 1953 and 1954 was \$15.00, but this was reduced to \$10.00 in 1955 where it has been ever since. Deer hunting is a bargain today with more days to hunt than ever before and everyone guaranteed a license. The major problem is illegal hunting, which is accounting for the loss of a significant portion of the deer herd each year. Another problem is landowner-hunter relations, which are strained by unthoughtful deer hunters that fail to have permission to hunt on private land. Both of these problems can be overcome with proper hunter education and hunter attitudes toward the great sport of deer hunting and respect for private property. □



Rick Elliott of 5155 E. Oakwood Drive, Des Moines, with his 300 pound buck taken in Mills County near Council Bluffs.

1977 Record Racks

OVER 60 WHITETAIL RACKS qualified for the 1977 Record Racks Registry. Bucks taken last season or before were measured and three ranked in the Iowa all-time top ten categories.

The top typical deer taken by shotgun last year belongs to Jack W. Chidester, Jr., of Albia, who edged out Franklin Taylor of Blencoe. Chidester's deer measured 186 1/8 while Taylor's went 185 6/8.

The biggest nontypical rack in the gun category was one of 203 which was measured last year but shot in 1963 by Gregory Stewart of DeWitt.

Top bow and arrow honors went to Richard Larsen of Ottumwa with a typical rack of 165 7/8. The nontypical top-spot went to Bill Custer of Woodbine whose deer measured 163 7/8. In order to enter your trophy it must be legally taken with bow and arrow or shotgun - muzzleloader within Iowa boundaries. If the rack meets minimum scoring standards you qualify for a certificate and a colorful shoulder patch in recognition of your feat. Unentered deer taken in past seasons as well as the present

are eligible for entry. To have the rack officially measured, simply contact the Iowa Conservation Commission, Information and Education Section, Wallace State Office Bldg., Des Moines, Iowa 50319. After we receive notification, we will forward a name of an official scorer who may be contacted. Because of shrinkage in varying degrees when antlers dry out, they cannot be officially measured for at least 60 days from time taken.

The scoring system used for Iowa records is identical to the Pope and Young and Boone and Crockett Clubs. The Pope and Young Club maintains scores for archery killed deer while Boone and Crockett keeps records for big game legally taken with firearms.

The four following classes with minimum scores for each will receive recognition:

Shotgun - Muzzleloader		Archery	
Typical	150 Points	Typical	135 Points
Nontypical	170 Points	Nontypical	155 Points

Name
Wayne A. Bl
George L. R
Dennis Vau
Randall For
Jack W. Chi
Franklin Tay
Marvin Tipp
Wayne Swar
Austin Wate
Terry Daniel

Name
Larry Ravel
Carol John
Duane Fick
LeRoy Ever
Donald Cro
John Meyer
M. V. Bruen
Dallas Pette
Dick John
John Ashba

Name
Jack W. Ch
Franklin Ta
John Janase
Rick W. Eli
Joel Kingla
Edgar Shiel
Max Specht
Earl L. Rog
Bobby Hull
David Haw
Randy DeV
Stan Fran
Robert B. F
Roger Knut
Ronald N
Kenneth Pe
Sam C. So
Howard Jo
Wayne Ma
Max D. Jo
Richard J.
Greg Van F
Frank Brad
James B. E
Bob Larson
Vernon Har
Herman J.
Hartley En
Earl L. Rog
Duane Ple
Harvey Se
Harvey Se
Ron Vick
Ron Pugg
Leo Elmon
Leonard G
Laverne D
David Spe
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New all time top ten record racks~

Shotgun Typical

Name	Address	Year	County Taken	Total Score
Wayne A. Bills	Des Moines	1974	Hamilton	199 5/8
George L. Ross	Ottumwa	1969	Wapello	195 1/8
Dennis Vaudt	Storm Lake	1974	Cherokee	187 4/8
Randall Forney	Glenwood	1971	Fremont	186 2/8
Jack W. Chidester, Jr.	Albia	1976	Monroe	186 1/8
Franklin Taylor	Blencoe	1976	Monona	185 6/8
Marvin Tippery	Council Bluffs	1971	Harrison	185 1/8
Wayne Swartz	Bedford	1967	Taylor	183 7/8
Austin Watters	Ottumwa	1974	Van Buren	183 6/8
Ferry Daniel	Marshalltown	1967	Marshall	182 3/8

Shotgun Nontypical

Name	Address	Year	County Taken	Total Score
Larry Raveling	Emmetsburg	1973	Clay	282 5/8
Carrol Johnson	Moorhead	1968	Monona	256 2/8
Duane Fick	Des Moines	1972	Madison	228 2/8
LeRoy Everhart	Sumner	1969	Van Buren	224 4/8
Donald Crossley	Hardy	1971	Humboldt	221 4/8
John Meyers	Council Bluffs	1969	Pottawattamie	218 3/8
M. V. Bruening	Hawkeye	1954	Allamakee	215
Dallas Petterson	Mitchellville	1975	Appanoose	214 5/8
Dick Johnson	Missouri Valley	1964	Harrison	213 7/8
John Ashbacher	Waukon	1973	Allamakee	209 1/8

Bow and Arrow Typical

Name	Address	Year	County Taken	Total Score
Lloyd Goad	Knoxville	1962	Monroe	194 4/8
Gary Wilson	Cherokee	1974	Cherokee	175 4/8
Gordon Hayes	Knoxville	1973	Marion	175 1/8
Jack Douglas	Creston	1974	Union	173 2/8
Ardie Lockridge	Amana	1965	Iowa	172 2/8
Bob Fudge	Burlington	1966	Des Moines	170 4/8
Brad Vonk	Des Moines	1974	Warren	168 5/8
Loy J. Brooker	Clinton	1963	Clinton	166
Richard L. Larsen	Ottumwa	1976	Wapello	165 7/8
Norman R. Bell	Burlington	1971	Des Moines	164 4/8

Bow and Arrow Nontypical

Name	Address	Year	County Taken	Total Score
Blaine Salkorn	Sutherland	1970	Clay	216 3/8
Bill Erwin	Sioux City	1966	Woodbury	202 5/8
Dennis Ballard	Iowa City	1971	Johnson	197 4/8
Richard Rekemeyer	Maquoketa	1974	Jackson	186 1/8
LeRoy Spiker	Harpers Ferry	1968	Allamakee	183 4/8
H. E. Nelson	Iowa Falls	1964	Hardin	181 3/8
Dan Mueller	Donnellson	1974	Lee	169 3/8
Gordon Vrama	Davenport	1967	Scott	167 6/8
Robert Filbrandt	Dows	1974	Franklin	167
Bob Oden	Waukon	1971	Allamakee	166 4/8

Record racks measured in 1977~

Shotgun Typical

(Minimum Qualifying Score — 150 Points)

Name	Address	Year	County Taken	Total Score
Jack W. Chidester, Jr.	Albia	1976	Monroe	186 1/8
Franklin Taylor	Blencoe	1976	Monona	185 6/8
John Janssen	Northwood	1976	Worth	179 2/8
Rick W. Elliott	Des Moines	1976	Mills	178 6/8
Joel Kingland	Joice	1975	Worth	173
Edgar Shields	Grand River	1964	Decatur	170 5/8
Max Specht	Monticello	1976	Clayton	169 2/8
Earl L. Rogers	Harrison	1968	Harrison	167 6/8
Bobby Hull	Blockton	1976	Taylor	163 2/8
David Hawk	Argyle	1976	Lee	163 1/8
Randy DeVore	Prescott	1976	Adams	163
Stan Franta	Lisbon	1976	Lee	162 7/8
Robert B. Hynden	Lamoni	1970	Decatur	162 5/8
Roger Knutson	Garden City	1976	Hardin	162 5/8
Ronald Nowachek	Monmouth	1975	Jones	162 5/8
Kenneth Pettinger	Dyersville	1976	Allamakee	162 5/8
Sam C. Sonka	Cedar Rapids	1974	Henry	162 3/8
Howard Johnson	Newhall	1976	Allamakee	161 7/8
Wayne Mathias	Birmingham	1976	Van Buren	161 7/8
Max D. Johnson	New Market	1967	Taylor	161 5/8
Richard J. Pickle	New London	1954	Henry	161 4/8
Greg Van Fosson	Glenwood	1976	Mills	160 5/8
Frank Brady	Guthrie Center	1956	Guthrie	160 4/8
James B. Eich	Fort Dodge	1976	Guthrie	160 4/8
Bob Larson	Waterville	1976	Allamakee	160 1/8
Vernon Hartzler	Kalona	1976	Washington	158 3/8
Herman J. Fletcher, Jr.	Harlan	1976	Mills	158 2/8
Hartley Enyart, Jr.	Waukon	1975	Allamakee	158 1/8
Earl L. Rogers	Fort Dodge	1969	Monona	157 6/8
Duane Pleggenkuhle	Hawkeye	1976	Fayette	156 4/8
Harvey Seiler	Zwingle	1975	Dubuque	156 1/8
Harvey Seiler	Zingle	1976	Dubuque	155 1/8
Ron Vick	McGregor	1975	Winneshiek	154 3/8
Ron Pleggenkuhle	West Union	1976	Fayette	153 4/8
Leo Elmore	LuVerne	1976	Kossuth	153 1/8
Leonard Grimes	Pella	1976	Jefferson	153
Laverne Doty	Deep River	1961	Keokuk	152 6/8
David Specht	Monticello	1976	Clayton	152 6/8
Forrest Tenley	Stanwood	1975	Jones	152 5/8
Doug Carlson	Sioux City	1975	Monona	151 7/8
Dean Magnussen	Sioux Rapids	1974	Buena Vista	151 3/8

Name	Address	Year	County Taken	Total Score
Charles Diehl	Eldora	1976	Hardin	150 4/8
Doug Weymiller	New Albin	1976	Allamakee	150 4/8
Jack Broders	Muscatine	1976	Muscatine	150 2/8
Lynn McDonnell	Bernard	1971	Dubuque	150 2/8
Keith Cox	Moorhead	1976	Harrison	150

Shotgun Nontypical

(Minimum Qualifying Score — 170 Points)

Name	Address	Year	County Taken	Total Score
Gregory W. Stewart	DeWitt	1963	Clinton	203
David Rutledge	Guthrie Center	1974	Guthrie	173 3/8
Robert Brink	Dow City	1968	Crawford	172 7/8

Bow and Arrow Typical

(Minimum Qualifying Score — 135 Points)

Name	Address	Year	County Taken	Total Score
Richard L. Larsen	Ottumwa	1976	Wapello	165 7/8
Richard E. Gill	Mt. Pleasant	1976	Henry	163 5/8
Doug Carlson	Sioux City	1976	Woodbury	161 1/8
Roger D. Dolling	Ames	1975	Story	157
Marty Liepa	Des Moines	1976	Dallas	154 5/8
Stephen A. Uhlenhopp	Aplington	1972	Butler	153 7/8
Bob Strayer	Garner	1971	Winnebago	149 6/8
Oscar Graves	Long Grove	1976	Scott	147 7/8
Jim Stanton	Forest City	1976	Winnebago	146 7/8
Dean Monson	Clear Lake	1966	Hancock	144 3/8
Elmer Kopaska, Jr.	Guthrie Center	1974	Guthrie	144 1/8
Robert L. Carter	Bloomfield	1976	Wapello	143
Bill Custer	Woodbine	1975	Pottawattamie	140 7/8
Jerry D. Lee	Humboldt	1976	Humboldt	140 5/8
Hartley Enyart, Jr.	Waukon	1976	Allamakee	137 6/8
Tim Hanna	Joice	1976	Winnebago	135 2/8
Carl Gertsen	Des Moines	1976	Warren	135 1/8

Bow and Arrow Nontypical

(Minimum Qualifying Score — 155 Points)

Name	Address	Year	County Taken	Total Score
Bill Custer	Woodbine	1968	Shelby	163 7/8
Darrell Zacharias	Waterloo	1976	Black Hawk	157 5/8

MUSKRAT TRAPPING TIPS FOR BEGINNERS

by Kenneth and Anne Eddy

As told to Tom Berkley, District Wildlife Supervisor.

I started trapping muskrats many years ago with one dozen traps and little knowledge of how and where to set them. I had observed muskrats often in ponds owned by my father and neighbors and learned how they used dens in the banks and dams of these ponds. My early efforts were limited to sets made in the den entrances, in slides, and in runs which muskrats were using. The results of these efforts produced fair amounts of fur, about as well as could be expected without anyone to give advice relative to making proper sets.

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Painting by Maynard Reece

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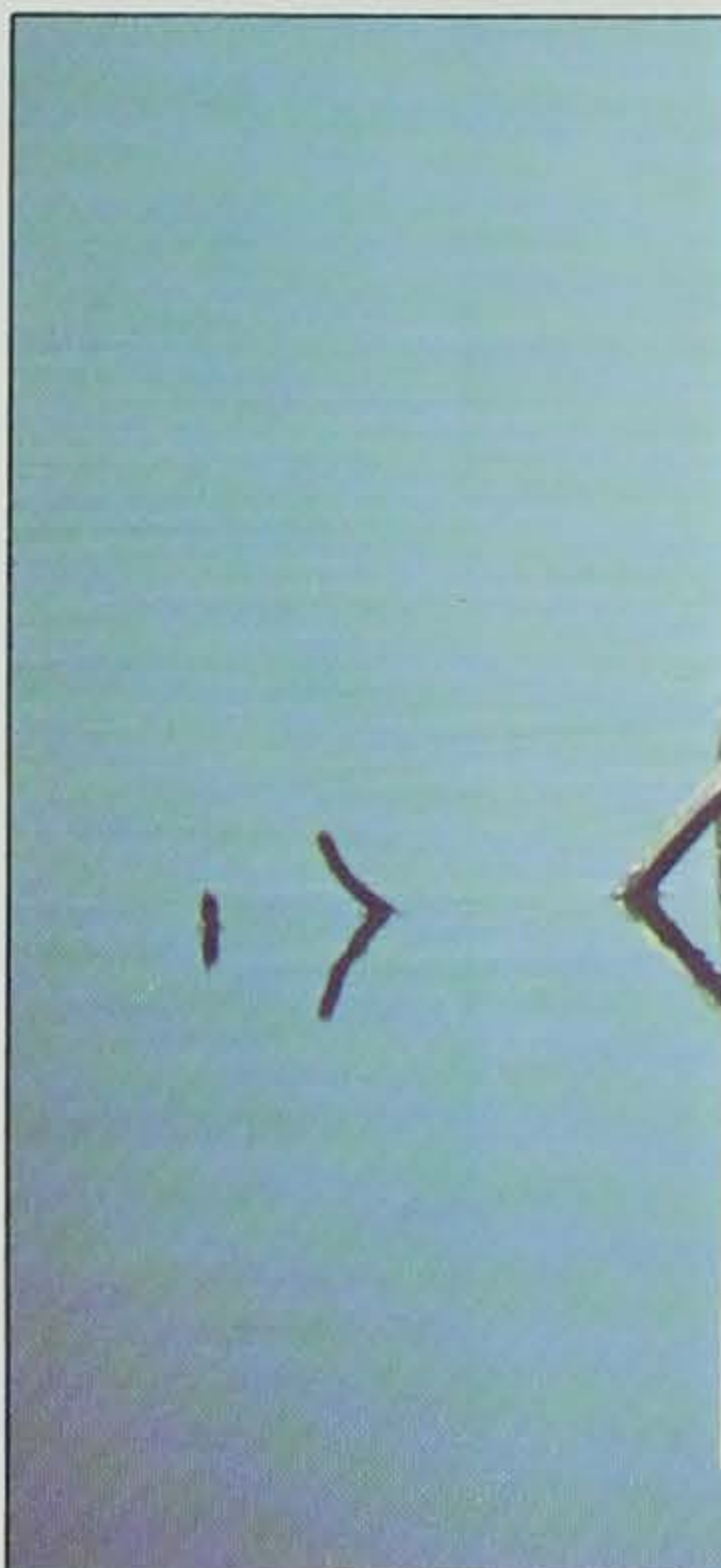
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One great advantage of the platforms is that they will remain in operation regardless of water level fluctuations in ditches or ponds. Another is that nearly all muskrats caught will jump from the platform into the water where the weight of the trap will soon drown them. The fur remains clean, saving time when skinning and stretching.

Sets made on floating platforms such as described here should be checked morning and evening as the sets are effective and will often take muskrats during daylight hours.

A materials list needed to trap muskrats by use of floating platforms is as follows: wire or cable reels or old lumber, corn for bait, three traps (for each float), twine or light rope and nails.

The reels are often available from electrical or power companies, or from local electricians, who often simply throw them away. The nails and twine may be picked up from local farm stores at little cost, and traps are usually available from the same source. Corn for bait is easily obtained from your crib or from a farmer friend.

My wife, Anne, joined me in my trapping endeavors more than three years ago. Our two boys have also become active in the program during the past season, so trapping has become a family affair with us. We enjoy the outdoor activities involved in trapping and plan to take only the surplus muskrats from ponds and ditches, leaving adequate seedstock to reproduce annually. We feel that muskrat populations benefit from such harvest, as dangers from disease and/or starvation are reduced through limited harvests. We normally make from three to six floating sets in a farm pond depending upon the size of the pond and number of muskrats present.

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Painting by Maynard Reese

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Practically all facets of the life and times of Iowa pheasants are presented. Major topics include: when and where Iowa's pheasants came from; a year with a typical pheasant flock; the influence of the environment on pheasants; hunting techniques and history of pheasant hunting in Iowa; and other topics.

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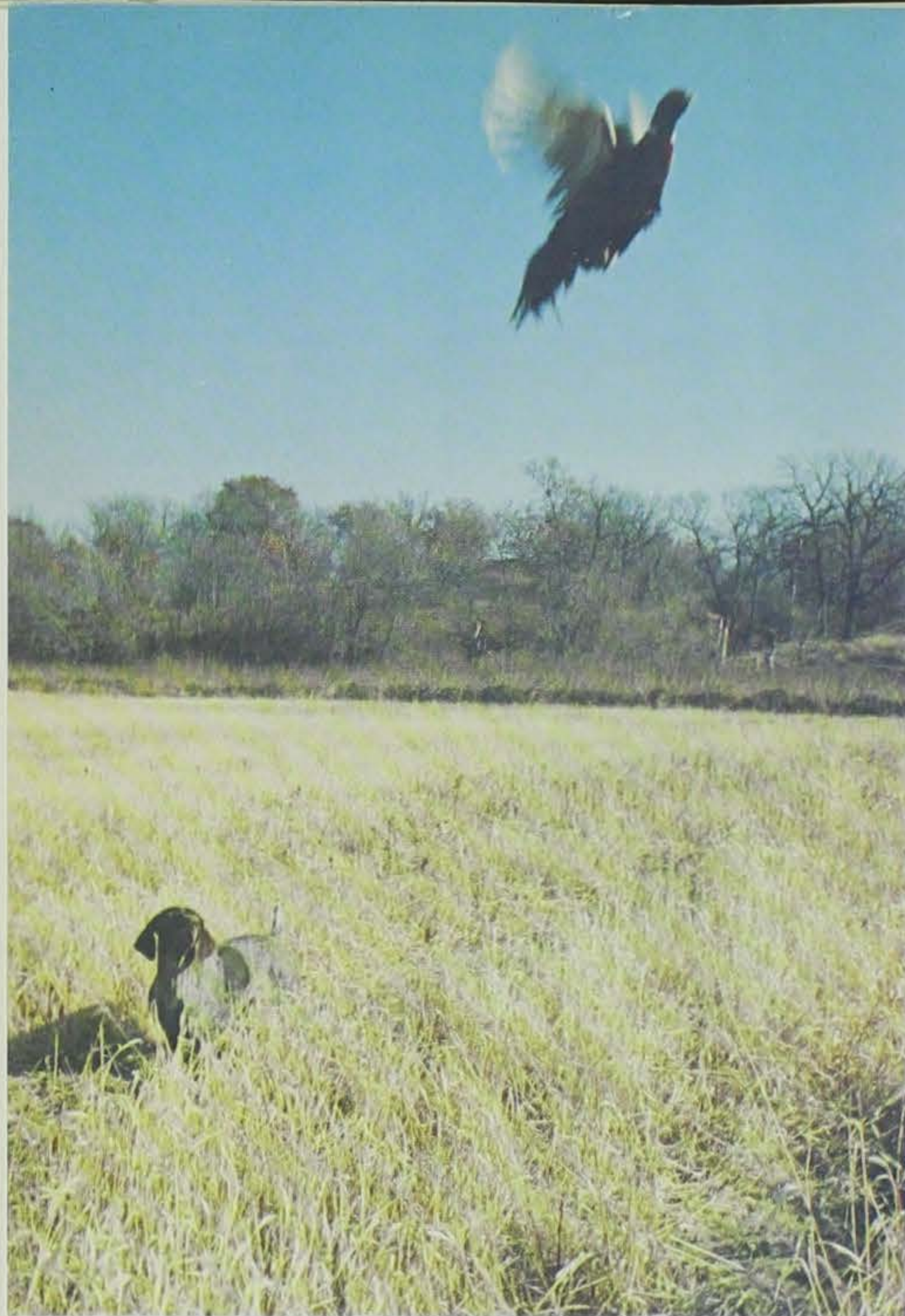


Photo by Ken Formanek

THOSE AMAZING RINGNECKS!

by Art Roseland

WILDLIFE BIOLOGIST, ODESSA WILDLIFE MANAGEMENT UNIT

What are these ringnecks? An enigma? In fall they slip through heavy cover on a dead run without parting stems, or can freeze and go unnoticed in cover only slightly more dense than a golf green. They can fly from guns and dogs at a quarter mile, or just after you're past, or not at all. They'll take shelter anywhere if necessary, in burrows, feedlots, windbreaks, or even behind a fence post. In spring, the cantankerous males may challenge anything, including a 2½ ton automobile, and go away crowing about it. And after several hours hunting with no success in good pheasant habitat, you may fill your game bag on the short walk back to the car through "barren" cover.

Whatever you make of these birds, they're a welcome immigrant, naturalized by nearly a hundred years existence in this country. The pheasant has built its own traditions: November homecomings by distant family members, which naturally coincide with opening day; the spring and summer alarm clock crowing of the roosters; the first brood sighted each year; the striking coloration of the young cocks which accent the fall fields; and later, the Thanksgiving Day centerpiece.

Many stories are told, and remembered. A north-central Iowa farmer remembers Ol' Shep repeatedly diving into a growing drift in the windbreak, during a January blizzard. Investigating, he eventually dug out one dozen plus ringnecks, their bodies crusted with frozen snow. The right thing for him was to save the birds, and no better place could be found than the furnace room in the basement of the big farmstead. The wood fire, baking the basement air, quickly released the pheasants and gave the farmer more problems than he anticipated.

There are hunting stories . . . as many as there are pheasant hunters. Such as the time four hunters, two pointers and a Brittany worked a hay field before taking a break. The hunters sat on the ground in light cover, dogs leisurely stretched out near their owners and occasionally stood up, only to turn, or nuzzle their masters. Ten minutes later all hands stood to leave, but before one step was taken, the old pointer was on. Her partner quickly responded. The dogs pointed near where the hunters had rested. Comments circulated as to whether the dogs had the scent of bagged birds, or maybe - the cackle and explosion of the nearby cock answered the questions. The sly rooster had sat tight within inches of four hunters and three dogs for at least ten minutes. That patient bird survived the gun, to be later tested with winter blizzard and sub-zero weather.

How many people have enjoyed the experience and told the stories of spring antics of the old roosters. One lady tells of driving her Oldsmobile down a gravel road early on a May morning. She was coming home from taking her husband to the fields. Driving slowly with the window down to enjoy the early morning air and sunshine, she was started while rounding a curve to see a gaudy ringneck smack in the road center. She approached slowly, but the bird moved only to face his metallic challenger. She had to stop. The bird would not give way, and added arrogance to insolence by attacking the front grill. The driver caught glimpses of flying feathers and beating wings before the bird once more stepped to the middle of the roadway. He defiantly strutted before the auto, head erect, tail stiffened. Shortly, the bird yielded the roadway, but only to jubilantly crow his victory as she drove away.

The ringneck has been an appreciated addition to Iowa's wildlife picture. But as we don't wish to ignore the traditions and legends spawned by this bird, neither should we take for granted that the future of the ringneck is secure. Changing agriculture has placed a great burden on pheasants. As plucky as the ringneck is, it still has basic habitat requirements needed to survive in appreciable numbers.

A winter landscape of a black desert garnished with steel posts and telephone poles is not enough. What is needed is a few acres in each section where pheasants can nest unmolested. Such cover might be small grains later harvested, roadsides spared from the mower, well managed pastures, or even a few acres set aside for their wildlife value. A good windbreak around the farmstead, or a protected winter cover area is icing on the cake. A few rows of standing corn, or a stalk field not turned by the plow is ice cream.

Some landowners recognize wildlife values on their land. To them, a farm is more than a crop factory. It is a home, not only for the farm family, but for wildlife as well. □



Wildlife and Forests

by Jim Bulman, District Forester and Jack Coffee, Wildlife Biologist

Photo by Jack Coffee

FORESTS are the home of many birds and animals, but do you know that forests appeal to different species of wildlife at different stages of forest development? Timber harvesting can be beneficial to wildlife and management practices will affect the numbers and kinds of birds and animals present in the area.

Examples of wildlife species which are totally dependent upon the forest are wild turkeys and gray squirrels. Although turkeys will often forage in crop fields and grassy areas next to the forest edge, they are too nervous to ever go very far from the protection of trees. They also depend heavily on the nut crop from oaks and require trees to roost in at night.

Gray squirrels are seldom seen except in large areas of timber. Unlike their cousins, the fox squirrels who live almost anywhere there are trees, grays do not tolerate people to any extent. Other wildlife that is seldom seen outside the forest includes chipmunks, nuthatches and woodcocks.

The deer is an example of an animal that lives in the forest but ranges into open areas for food. Some deer even live in areas of the state which have little timber, living in brushy and weedy draws. By comparison, few are found in level-land counties where most land is under cultivation and in general we can say "... the more timber, the more deer."

Many birds and animals are capable of living in either the forest or other environments and many spend only part of their lives in the forest. Finally there are groups of animals that are almost never found in the forest such as meadowlarks and jack rabbits.

Someday when you have time, select an area of white oak pole-timber; a place where the trees are growing so close together that they shade the ground and there are few low-growing plants. Sit for a couple of hours and count the squirrels. You will probably not see many. The area is in a state of development that is unproductive for wildlife. Look at the trees and see how tall and

straight they are. Are they too young to produce acorns? If so, they are of little interest to squirrels, deer, turkeys and other things that feed on acorns. These trees are much too young and healthy to have holes formed through the process of decay, providing homes for squirrels and birds. Their branches are not yet strong enough to support the weight of any wild turkey which might roost in them. They have not suffered the attacks of insects which would attract the noisy woodpecker and the demure nuthatch.

But step over the hill or down into the creek bottoms where the oaks are large with strong spreading branches, or stately cottonwoods are starting to show signs of age in their tops with dead and broken branches. Notice perhaps a huge maple which suffered a broken limb long ago that exposed its heartwood to decay, or step up to a basswood so large you can't reach around it but which is hollow from top to bottom.

You are in a forest at a state which, although least productive for wood, is in its most productive stage for wildlife. Every hole has its snoozing raccoon who will venture out at evening to raid the nearest cornfield or fish crawdads and other tasties from the nearest waterhole or stream. Fox and gray squirrels are popping in and out of smaller holes, or cutting and eating buds. The woods are alive with the sound of woodpeckers drumming holes into trees to dig out the insect larvae living just under the bark or deep within the wood. On the forest floor, chipmunks are scurrying in and out of rotting logs or small holes among the tree roots, putting away a winter supply of nuts and seeds, stopping now and then for minutes at a time to make their strange "chock" sound at intervals of 2 or 3 seconds.

On a late summer or early fall day, nothing would seem more everlasting than the community of plants and animals just described. But it is not a static community. In due time, the large

(Continued next page)

trees will die and fall down, to be replaced by the new forest with different inhabitants.

The two stages in the life of the forest just described (the crowded pole-timber and the over-mature stand) represent the extremes of wildlife production, from practically no wildlife to a very productive situation.

There are two other stages. At the time the forest is being regenerated, it becomes what most people call a brush patch and

breakage. Vigor is lowered because soil compaction restricts air, water and nutrients available for use by the tree.

In some cases a severely over-grazed woodland becomes good wildlife habitat when grazing is stopped because brush tends to invade the areas, thus providing cover and because of development of holes and dens in trees caused by livestock damage. In these cases the productivity for forest products may have been reduced.



Photo by Jack Coffee

consists of small trees, grasses and other plants. At this stage it is especially attractive to deer because it offers protective cover and a ready food supply of tender branch tips within easy reach.

We may observe yet another stage as the forest begins to grow from a pole-stand to a saw-timber stand. This stage continues until the trees become mature, after which they begin to decay. Trees are producing food for wildlife such as acorns and walnuts. Holes are beginning to develop in broken branch stubs and other wounds which will provide homes for squirrels, raccoons and birds.

In this manner, the forest grows through a succession of stages which may be more or less attractive to wildlife. In a forest which is well managed for timber production, the first stage may be introduced rather catastrophically, from the standpoint of the forest inhabitants, as the mature stand is harvested. This brings us to the question of what the manager can do to make the woodland he controls more attractive for wildlife.

If the woodland is being used for pasture, the elimination of grazing will be beneficial for most wildlife. This is probably going to involve a decision to give up income or to spend money on fencing. Grazing animals compete for the food supply and, more importantly, may destroy the entire ecological system supporting the food chain which begins with soil micro-organisms and builds up to large mammals and birds.

Grazing of forest land tends to change the ecosystem so that it supports only a few species, the most important of which is the grazing animal itself. These changes occur because compaction of the soil destroys the environment for many soil micro-organisms, insects and other small animals. Vegetation undergoes a change to species which are capable of surviving in soils having poor aeration. Trees become damaged by the mechanical action of livestock hooves upon exposed tree roots or by rubbing or

Harvesting of timber is usually beneficial to wildlife, especially if it creates an opening within the forest. The places most productive for wildlife are where two different types of vegetation come together and create an "edge" such as at the boundary between a forest and crop field. When making an opening within the forest by harvesting, a boundary is created between older trees and brush. A person planning a timber harvest should strive to make the amount of "edge" as great as possible in relation to the size of the area harvested. Retention of den trees should also be considered.

People often think about planting shrubs for wildlife around the edge or within the forest. However, in most cases, adequate food and cover are available for the kinds of wildlife that live in the area. Establishment of small areas of row crops adjacent or within the forest will create more "edge" and be helpful.

If it is desired to attract a particular species to the area, the habits of that species should be determined and the environment modified to create a suitable habitat. Examples include the construction of bird houses to attract certain species of birds; providing a pond which may attract deer and racoon; or providing an area of grain crops which attract many species of birds and animals.

Basic to the idea of managing forests and wildlife together is to maintain areas of woodland. The acreage of Iowa woodlands is fast diminishing, being lost to the bulldozer through clearing for crop and pasture lands. We must come to realize that if we are to have forests, and the wildlife that is dependent upon a forest habitat, we must forego some benefits we hope to gain by clearing land.

If you want assistance in managing your forest land for timber and wildlife, contact the wildlife biologist or district forester for your area. □

Warden's diary

by Rex Emerson

LAW ENFORCEMENT SUPERVISOR

THERE IS NOTHING more beautiful in the world than the autumn season in Iowa. This is the pheasant hunting time of the year. Over three hundred thousand hunters will enjoy this finest of outdoor sports again this fall in Iowa. The fall weather will soon remind everyone to have a coat handy to put on when the wind gets around to the north.

The old man down by the river said he wasn't going to say anything about there being a "bit of a nip in the air" around his wife's brother, because he would try to drink it.

Prior to the hunting season some people say to the game warden, "Hey, the hunting season is going to open soon. You guys will have to go to work!"

Well, that is surely true, but if we hadn't been doing a lot of work and putting in a lot of hours before the season opened, there wouldn't be any game now to open the season on. For instance, one day before season opening, I turned a corner on a county road just as a farmer on a corn picker dropped a pheasant right in front of my car. How about the rabbit hunter who had a pheasant hidden behind the spare tire. Then there was the college student last week who was supposedly hunting squirrels, which would have been alright. But the pheasant in the trunk wasn't alright, as the season wasn't open yet.

Even though we work hard at enforcing the laws on seasons and limits, some people will take a chance and shoot something out of season. If there was no law enforcement, where would our wildlife be?

Someone asked me, "Who needs hunters? What good do they do?"

The hunter who buys his license pays the entire bill for the protection of all wildlife. This protection is for all species of game and birds, even if we don't have an open season on them, such as doves. The license money also pays for the protection of non-game birds for which we would never expect to have a hunting season. The hunter not only enjoys the sport of hunting, but he enjoys seeing wildlife as well.

The hunter pays excise taxes on his guns and ammunition to pay for wildlife areas that he uses a few days out of the year. But the rest of the public can enjoy it all year long. Sportsmen were the first to demand that the market

shooting which threatened many species of wildlife be stopped. They were also the first to call for season and bag limits. The Ducks Unlimited members pump millions of dollars into duck nesting habitat. They really put their money where their mouth is.

Who needs hunters? You do.

Don't think for one minute that song birds don't need protection. There was the twenty year old who shot more than a dozen song birds of various kinds, just for kicks. He got some jail time for this act of vandalism. Then we have the youngsters who get new air rifles, but no parental guidance to go along with the guns. They want to shoot something, and it usually ends up being some kind of song bird. Usually a talk with the young person and the parents will put a stop to this. Who has this talk with the parents? The game warden, of course. Before the bird watchers get up in arms about the children with air rifles, they should check their pet cat. Chances are it might have bird on its breath.

The opening of this pheasant season will be much like all the past openings. A few hunters will be out there without a license. A few non-resident hunters will try to get by with a cheaper resident license. A few will have loaded guns in their cars. Some of them will go hunting on private property without permission of the owner. Unfortunately these few are the only hunters that people seem to remember after the season is over.

No one talks about the hunters who stop at the farmhouse and ask permission to hunt. Who remembers the hunters who helped a farmer with a cow that was having trouble calving? Then there were the hunters who pulled a cow out of the shallow muddy pond. She didn't live, but they had spent their time and tried their best to save her. And the sheep on its back which hunters helped put back on its feet. Farm dogs have been released from fences. The list could go on and on, but then who wants to remember the good guys? Only the "slob" hunter is news. As the person who opens a savings account in a bank is not news, but someone who illegally withdraws money from the bank is news.

The good sportsmen and the game wardens are not going to let the slob hunter ruin the sport of hunting for everyone. We need the farmer and we need the farmers' good will. Most of the hunting in Iowa is on private property. So if you are a hunter who hunts too close to buildings, hunts without permission, leaves gates open and shoots out of the car window, you had better clean up your act and join the majority—the good hunters. The good sportsmen are going to report you if you don't.

ENERGY

(Continued) equipment to produce and transport the electrical energy which the consumer, the farmer and industry demands.

To meet such varied needs for land, a land use plan for our state is needed. Such a plan, if well coordinated, would be the realistic method for an effective land conservation program.

Power plants use large quantities of water for cooling, most of which is returned to the rivers, streams or the atmosphere. Little is consumed, but water

is a resource vital to life. Clean, uncontaminated water supplies not only sustain human life, but rivers and streams provide for abundant populations of fish and other animals. Additionally, water offers opportunities for many forms of recreation. Programs such as the "Save Our Streams" campaign, sponsored by the Izaak Walton League, are a good approach to effective water conservation through community involvement. However, the consumptive uses of water, such as irrigation and power generation, dictate a

need for long-range water resource management.

Conservation and wise use of land, water and energy resources is imperative. This must be not just a philosophy, but a practice in which we all actively participate. Indeed, for man's survival in this generation and for generations to come, for our people and our nation, conservation and wise use of air, land, water and energy is everybody's business and responsibility. □



Help Stop Game Thieves

by Bob Mullen

STATE CONSERVATION OFFICER

Photos by Wendell Simonsen



Top: Overlimit of pheasants seized from 3 hunters on the opening of the season an hour after it opened. This type of flagrant violation hurts everyone. Above: Three deer that were poached out of season—officers were able to make arrest due to information received from a concerned citizen.

WE'VE ALL HEARD the phrase "it only takes one rotten apple in the barrel to spoil the whole bunch."

This rotten apple situation is happening to hunters. A few bad hunters are giving the honest sportsman a bad name and the rotten apple is the wildlife thief or poacher. With today's anti-hunting movement, the honest hunter does not need this shadow cast on his numbers by the poacher.

Some people are not aware that game is often taken illegally. Some might ask, "just what do we mean by a wildlife thief or poacher?" A poacher is someone who takes game out of season, takes deer at night with lights, shoots hen pheasants, uses lights to search for raccoons or takes more than his limit of game. Someone might ask, "does it really matter or really hurt that much that these things occur?" Poaching affects many more people than you might think. Did you get your buck this year during hunting season? If you didn't it may be that a poacher killed your deer before the season, and it could be he shot three or four besides. Wildlife is for everyone, not just the sportsman, but also for those who may like to just see or photograph these animals. The poacher is robbing you. He takes what belongs to you, hunter and non-hunter alike. Does it really matter if hen pheasants or too many does are killed? The answer to that is a big yes. When hen pheasants or too many does are killed, the future populations of these species suffer. When wildlife populations suffer, the sportsman also suffers.

The average legal hunter or non-hunter many times is not aware that game laws are designed to perpetuate a harvestable surplus of game. When these laws are not obeyed, it becomes necessary to pass still more restrictive laws to reduce the legal kill. The laws would mean nothing to the

violin, but the honest hunter pays the penalty. Shorter seasons, reduced bag limits, and other restrictions are the result of the bad apples in the barrel.

Why do some people poach? They poach for profit, ego, or taking what they believe is theirs. The person who poaches for profit is nothing more than a crooked business man. He's in it strictly for the money, and is willing to take calculated risks. He expects to get caught once in a great while, but he looks at fines as nothing more than a business expense.

The egotistical poacher is the fellow who uses poaching as a way to build himself up. He brags to the fellows at work about all the game he gets, or how he gets by with it, and he thinks this makes him a real man. Others poach just for the thrill of it. He's the same kind of fellow who shoots up road signs, vandalizes property or commits other crimes just because he's determined to do things against the law.

The third category is the person who feels a hunting license gives him a right to game, and not just the opportunity to hunt. This person will get his game however he can. Also, in this category, is the person who feels all wildlife should be utilized without regard for the game regulations. This person justifies his poaching by the statement: "Those deer belong to me just as much as you, and I'm getting mine while the getting is good."

The biggest problem for conservation officers is that there is no "typical" poacher. Conservation officers can't go out and look for a man in a certain age bracket who has a certain I.Q. and lives in a certain type of neighborhood. Poachers live in all types of neighborhoods, vary in age, and have varying educations.

What can be done to curb these poachers that are giving the honest sportsman a bad

CLASSROOM CORNER

by Robert Rye Administrator, Conservation Education Center



THE SUN is the most familiar of all the stars—and yet not everyone realizes that it is a star.

Small children may not share all our feelings about the sun and stars. Yet to them the sun and the night sky have an irresistible fascination. When a child recites "Twinkle, twinkle little star, how I wonder what you are" he is unwittingly giving expression to mankind's old curiosity about stars and why

they behave as they do.

The sun is more important to us than any other body in the heavens. It appears large and red, instead of small and cool like other stars, because it is close to us.

We see all about us the results of the energy that the sun gives to the earth. We owe almost all our heat and light as well as energy to the influence of this great ball of fire. Many items in the news—temperatures over

100° F or 30° below, the energy crises, black outs—continually remind us of our dependence on the sun.

There are facts known about the sun which help teach us about other stars. Facts such as sunspots, eclipses, atomic energy, distances, and temperature are difficult for people to understand. At the CEC we try to relate some of these to every-day life—for instance, temperature. We consider how hot it is in midsummer despite that the nearest we come to the sun is 93 million miles. Have you ever tested the difference in temperature of a campfire and 93 inches away? 93 feet? 93 miles?

Plants cannot grow without the sun's rays, and animals, in turn, draw life-sustaining energy from the plants. It is not surprising that ancient people worshiped the sun as their supreme god and that to many the word "sunshine" means "happiness."

The sun is included in many of our classes such as the studies of energy, wastewater, forestry, populations, and parks. Other classes turn to appreciation of art and include photography—like a picture of the sunset—or sun printing.

Photographing the sun takes patience (waiting for just the right moment) and sufficient practice with your camera. You must decide on the right foreground for your picture, what clouds you want, and exactly where you want the sun to be in the picture. It requires plenty of planning for the perfect picture to be taken.

Sun printing is a much simpler way of producing a picture and does not require a camera. Sun prints provide outdoor groups and classes with an interesting method of recording evidence of plants and animals in their natural environment.

Items needed are specimens of various shapes, types or from a variety of environments, Diazo paper, a cover of plastic or glass and ammonia. Place your specimen on the paper and place the clear plastic on top to hold the object in place. Expose the paper to the sunlight for 30-60 seconds and then to the fumes of ammonia. You now have a permanent picture which can be framed and/or placed on the wall.

This activity along with photography should lead into a discussion of the sun and other parts of our natural resources which we must always use wisely.

name, and stealing from the people of Iowa? The most important thing is to know that a conservation officer is only as effective in reducing poaching as public cooperation in his area. Statistics show that for each instance of poaching at least six people, not directly associated, may be aware of the violation. The reluctance of these people to report violations becomes a direct aid to the poacher. Public apathy toward violations is a problem. People need to realize that the poacher is stealing from them, and not the conservation officer. The answer to the problem is not just more wardens, but public responsibility. The honest sportsman needs to realize that self government, within the ranks of those who hunt, is needed. The elimination of poaching will only come when everyone decides to turn in those people who give our sportsman a bad name. All it takes is a phone call to your state conservation officer. Law enforcement ethics demand that the officer keep the source of his information strictly to himself or other officers helping him.

One surprising thing is that many

sportsmen see violations but don't report them. People need to remember that a violator is stealing from all of us.

A factor that has aided the poacher is advancement in modern technology. Some violators keep track of an officer's whereabouts with citizen band radios and are long gone when he arrives.

In areas where game violators are reported, the effects have been widespread.

An illegally taken buck cost two poachers almost \$800 in fines because somebody cared and reported the violation.



Photo by Bob Mullen

Besides reducing poaching in an area where people report incidents, vandalism has also been reduced, along with a reduction of farm break-ins, and livestock thefts. Many times a person who poaches commits many of these other crimes also.

Iowa's hunter safety program is designed to help curb violations. One phase of the course is to make the beginning sportsman aware of the responsibility that goes with hunting, including respect for game laws. Many anti-hunting factions would like to see such programs fail, but failure is unlikely when more and more honest sportsmen become involved.

The ultimate in wildlife enforcement will be a reality when honest sportsmen and concerned citizens become involved and offer information to conservation officers. When the poacher realizes that he no longer is shielded by public silence, his operations will diminish. Your state conservation officer is working for you, to preserve your interest and the interest of future generations, but he is only as effective as the support you give him in stopping violations. □



J. F. Landenberger

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